



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,353	07/02/1999	MARIE ANGELOPOULOS	YO996-049BX	2281
7590 03/16/2005 Thomas A. Beck Esq. 26 Rockledge Lane New Milford, CT 06776			EXAMINER YOON, TAE H	
			ART UNIT 1714	PAPER NUMBER
DATE MAILED: 03/16/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/346,353

Applicant(s)

ANGELOPOULOS ET AL

Examiner

Tae H. Yoon

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 Jan. 2005.  
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16, 20, 22-25, 40-42 and 46-52 is/are pending in the application.  
4a) Of the above claim(s) 46-52 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16, 20, 22-25 and 40-42 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_

Art Unit: 1714

The recited "Curve 5(a)", "Curve 5(b)" and "Curve 5(c)" in lines 1, 2 and 4 of page 8 is objected and "Figure 5(a)", "Figure 5(b)" and "Figure 5(c)" recited for drawings are suggested.

Newly submitted claims 46-52 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: New claims and the examined claims are related as subcombination and combination since particular solvents and additives recited in said claims 46-52 are not required in the instant claim 1, for example.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 46-52 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 1714

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478) or Ikkala et al (US 5,520,852).

Rejection is maintained for reason of record.

The claim does not recite solvent, additive or removing solvent, however, the instant specification (the bridging paragraph of page 12 to page 13 and specific examples on pages 15-17) shows said solvent, additive and removing solvent in order to obtain at least one crystal grain, and doping thereof for the isotropic electrical conductivity. **Thus, the utilization of the same solvent, additive and polymer and removing or partly removing said solvent in the prior art inherently meets the instant properties and the instant claim only recites at least one crystal grain, not a completely crystalline material.** One can be his/her own lexicographer and thus a method utilizing a composition using the same components meets the invention. Applicant failed to show that the polyaniline of the cited art does not have an isotropic electrical conductivity. The example 6 of Han shows the use of a mixture of NMP and tripropylamine, and said **NMP is N-methyl pyrrolidinone** (see line 3 of the instant page 11) contrary to applicant's assertion.

Ikkala et al teach a polyaniline having a **crystalline structure** at col. 18, lines 48-56, and said polyaniline would possess the isotropic electrical conductivity. Claim 1 was not rejected under Ikkala et al.

Art Unit: 1714

Claims 1-16, 20, 22-25 and 40-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478).

Rejection is maintained for reason of record and following.

Han teaches removal of solvent at col. 22, line 55 to col. 23, line 6 contrary to applicant's assertion. Again, **the utilization of the same solvent, additive and polymer and removing or partly removing said solvent in the prior art inherently meets the instant properties (--- to achieve said crystalline state thereby comprising a polycrystalline material and a degree of amorphous regions ---) and applicant failed to show otherwise.**

With respect to applicant's assertion regarding the Board's Appeal decision and example 6 of Han, Han clearly teaches a mixture of NMP and tripropylamine in example 6 and said NMP and tripropylamine meet the instant solvent and additive. One can be his/her own lexicographer and thus whether Han recites said NMP as a plasticizer or a solvent is immaterial.

Contrary to applicant's assertion, the rejection contains reasoning based on the inherency, and applicant's stated heading on the middle of page 3 does not recited 35 U.S.C. 102(b) rejection.

Claims 1-16, 20, 22-25 and 40-42 are rejected under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478) in view of Cao et al (US 5,232,631).

Rejection is maintained for reason of record and following.

Stretching of film of Han in order to obtain an oriented film is an obvious practice as taught by Cao et al.

Claims 1-3, 5-9, 11-16, 20, 22, 24, 25 and 40-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Elsenbaumer (US 4,983,322).

Rejection is maintained for reason of record. The examiner repeats following; **the instant figure 5(a) is based on polyaniline processed with NMP. There is no description whether the oxidizing dopant used in Elsenbaumer is utilized or not for said figure 5(a), and thus applicant's assertion the polyaniline film of Elsenbaumer is amorphous has no probative value.** Also, doping of the amorphous polyaniline film with aqueous hydrochloric acid (or with any other dopant) would not change the morphology of the solid film. Such method is different from the method taught by Elsenbaumer, solution process, which would inherently yield the instant properties, and applicant failed to show otherwise.

**Applicant considers plasticizers and diluents being an oxidant, and thus the same plasticizers and diluents taught by Elsenbaumer would be an oxidant also or the same oxidant (or dopant) taught by Elsenbaumer would meet the instant plasticizers and diluents.**

Contrary to applicant's assertion, Elsenbaumer teaches the use of solvents at col. 8 and col. 9, line 62 to col. 10, line 23.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (571) 272-1128. The examiner can normally be reached on Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tae H Yoon  
Primary Examiner  
Art Unit 1714

THY/March 9, 2005